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ABSTRACT

The Anchor Test Study is described as to objectives, the need for the study, tests selected for the study, States' participation, renumeration of School Test Coordinator, teacher participation, schedule of activities, reports of test results, pupil personnel data needed, and the tests administered during the restandardization phase and equating phase of the study. The two objectives of the Anchor Test Study are: (1) to provide the ability to translate a child's score on any one of the seven most widely used standardized reading tests into a score on any of the other tests; tables for this purpose will be prepared for tests appropriate for fourth, fifth, and sixth-grade children; (2) to provide new nationally representative norms for each of the seven tests. The first phase of the study is the equating phase, which involves administration of pairs of tests to fourth, fifth, and sixth-graders in approximately 500 public and nonpublic schools. Two appropriate reading tests will be administered to each participating student, and equivalent scores on the seven tests will be determined. In the restandardization, or norming phase, the study will provide a new set of norms for the Metropolitan Reading Test for Grades 4, 5, and 6, using a sample of approximately 940 public and nonpublic schools. The results of the two phases will be combined to produce new norms for the six other tests. The intitial study operations began on July 1, 1971. The final report of the study will be submitted in November 1972. (DB)

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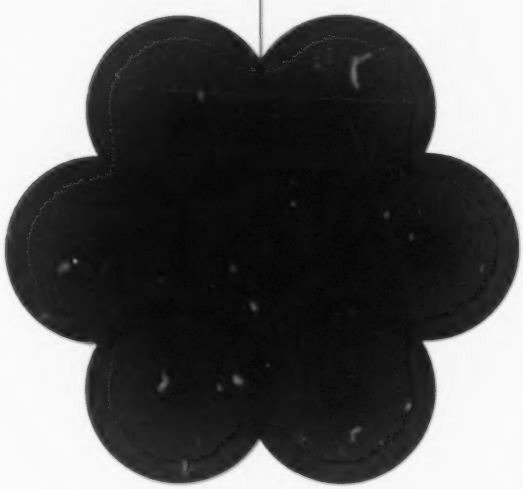
A DESCRIPTION OF THE

anchor test study



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What is the Anchor Test Study?

The Anchor Test Study has two objectives. First, it will provide the ability to translate a child's score on any one of the seven most widely used standardized reading tests into a score on any of the other tests. Tables for this purpose will be prepared for tests appropriate for fourth-grade, fifth-grade, and sixth-grade children. Second, the Study will provide new nationally representative norms for each of the seven tests.

Children to be tested in this Study will be selected, using the latest principles of random sampling, from data already available to the U.S. Office of Education.

The first part of the Study, the *equating* phase, involves administration of pairs of tests to fourth, fifth, and sixth-graders in a sample of approximately 500 public and nonpublic schools. Two appropriate reading tests, including reading and vocabulary subtests in most instances, will be administered to each participating student—one test in the morning, the other in the afternoon. The purpose of this phase is to determine *equivalent* scores on the seven tests.

In the *restandardization*, or norming phase, the Study will provide a new set of norms for the Metropolitan Reading Test at Grades 4, 5, and 6, based on a randomly selected, stratified sample of approximately 940 public and nonpublic schools. Every pupil tested in this phase will complete the Word Knowledge and Reading subtests of the Metropolitan Reading Test. New norms for the Metropolitan Reading Test will be constructed from the results of this phase. The results of the equating phase and the restandardization phase will be combined to produce new norms for the other six reading tests.

A given school district may be asked to provide sample schools for either the restandardization or equating phase, or both. However, any single school will take part in only one phase of the Study.

Why do we need a Study of this nature?

For more than 30 years, those concerned with educational testing and evaluation have recognized that standardized tests which claim to measure the same skills actually vary considerably in their approach to measurement. Thus, different publisher's tests of "reading" may differ in content, scales of measurement, and the design of their norming samples. Ordinarily, these differences might be regarded as the result of normal and expected variation in measurement philosophy and opinion among members of the testing profession, and accepted simply as an area of academic disagreement. However, as early as 1941, it was recognized that some of the differences were legitimately avoidable and that reduction of differences would be of major advantage to educational practitioners and researchers.

Differences in test content are unavoidable unless we accept only one "right way" to measure specific skills. Differences in norming and standardization can and should be avoided, particularly when publishers claim that their norms are nationally representative.

At present, schools accustomed to one test cannot move to another test without breaking the continuity of their testing program. Schools within the same district cannot merge or compare their data, nor can they participate in a mutually beneficial evaluation of experimental programs unless they all use the same test. These problems are not restricted to schools. What is perhaps of greater concern are the problems faced by central agencies, such as those at the county, state, and federal level; these agencies cannot merge test results unless all schools involved in the comparison use the same test.

The Anchor Test Study will permit the merging of data on different reading tests and thus will eliminate many of these problems. School counselors will be able to convert the test scores of students who transfer into their districts to scores on the reading tests they normally administer. School system offices will be able to convert to a single test, scores on different tests used by different schools, and thus compile reading achievement statistics for the entire district. State departments of education will be able to allow freedom in school districts' choices of read-

ing tests and will still be able to compile statewide reports on reading achievement.

The norming portion of the Study will provide additional advantages. Many of the norms currently available do not provide adequate representation of all the nation's children. Some norms samples do not fairly represent inner city or nonpublic school children. The norms that result from this Study will be truly nationally representative and will be weighted to represent children in all geographic and socioeconomic categories in proportion to their representation in the population.

Why does the Study focus on reading at the upper elementary grades?

The ability to read is fundamental to accomplishment in most academic subjects. Therefore, tables for equating test scores are being developed for this critical area.

The choice of upper primary grades for the Study was made because reading is so crucial early in the child's educational career. Also, available data on testing show that school systems throughout the nation administer reading tests most frequently in the upper elementary grades.

Truly representative national norms for reading are needed by many school systems and state departments of education. The norms to be produced by this Study will include representation of inner city children, nonpublic school children, and other groups that have been excluded from some norms presently available.

What tests will be included?

The seven standardized tests selected for the Study are those most widely used by school systems throughout the nation. Data on test usage collected by the U.S. Office of Education show that these seven tests are used with more than 90 percent of the fourth, fifth, and sixth-grade children tested by school systems.

The editions of tests to be used in this Study are consistently the latest available from the publishers. The results of the Study should, therefore, be useful for many years to come. The levels of tests to be used are those recommended by the test publishers most often for children in grades four, five, and six. The test editions, forms, and levels to be used are listed on the following page.

Title/Edition/Form	*Publisher*	*Subtests*	LEVEL BEING USED FOR GRADE: *4*	*5*	*6*
California Achievement Tests (1970)—Reading, Forms A and B	CTB/ McGraw-Hill	Reading Vocabulary Reading Comprehension	Level 3	Level 3	Level 4
Comprehensive Tests of Basic Skills (1968), Forms Q and R	CTB/ McGraw-Hill	Reading Vocabulary Reading Comprehension	Level 2	Level 2	Level 3
Iowa Test of Basic Skills (1970), Forms 5 and 6	Houghton Mifflin	Vocabulary Reading Comprehension	Level 10	Level 11	Level 12
Metropolitan Reading Tests (1970), Forms F and G	Harcourt Brace Jovanovich	Word Analysis Reading	Elementary	Intermediate	Intermediate
Sequential Tests of Educational Progress, STEP Series II (1969), Forms A and B	Educational Testing Service	Reading	Level 4	Level 4	Level 4
SRA Achievement Series (1970), Forms E and F	Science Research Associates	Vocabulary Reading	Blue Edition	Blue Edition	Green Edition
Stanford Reading Tests (1964), Forms W and X	Harcourt Brace Jovanovich	Word Meaning Paragraph Meaning	Intermediate I	Intermediate II	Intermediate II

Who is designing and conducting the Study?

The U.S. Office of Education developed the basic plan and detailed specifications for the Anchor Test Study. The Study was conceived as an integral part of the Office of Education's program of evaluation in elementary and secondary education. It was apparent from the outset that the results of the Study would be useful at

all levels of educational administration: Evaluative results would be useful to states and the Federal government, and local school systems could enjoy increased flexibility in achievement testing.

The contract for conduct of the Anchor Test Study has been awarded to Educational Testing Service (ETS), a nonprofit, non-stock corporation. The Study is being conducted by ETS's Western Office in Berkeley, California, but extensive use will be made of the technical expertise of its statistical and psychometric staff in Princeton, New Jersey, and other offices.

An Advisory Council, representing many nationally recognized professional organizations in education, has been assembled to guide ETS in the conduct of the Study. The Council also includes others vitally interested in the education of special groups of pupils, such as those with bilingual problems. The following persons are members of the Advisory Council:

B. Alden Lillywhite, Council of Chief State School Officers, *Chairman*
Joan Bollenbacher, Director, Evaluation Services, Cincinnati Public Schools
Sylvia Herrera de Fox, Executive Director, ASPIRA Inc. of Illinois
Richard B. Hodges, Coordinator-Director, Title I, ESEA, New Hampshire State Department of Education
John Hooker, Director, Testing Services, University of Tennessee
Marcella Johnson, Director of Curriculum, Los Angeles Board of Education
Robert Jozwiak, National Association of Elementary School Principals
Eleanor Ladd Kress, Associate Professor, Temple University
Sister Leo Vincent, National Catholic Education Association
Ruth H. Mancuso, Board of Directors, National School Boards
John Peper, Director, Research and Evaluation, Philadelphia Public Schools
Charles W. Thomas, Professor, Urban and Rural Studies, Third College, University of California (San Diego)
Clemmont E. Vontress, Associate Professor, Counseling and Guidance, School of Education, The George Washington University
C. Taylor Whittier, Commissioner of Education, Kansas State Department of Education
Benjamin C. Willis, Superintendent of Schools, Broward County, Florida

What does participation involve?

Participation in the Study requires that several individuals in state departments of education, school district offices, and schools accept specific responsibilities. Invitations to participate in the Study are being extended to Chief State School Officers and, upon their acceptance, to school superintendents and school principals. The Study is designed so that state offices, participating school districts, and participating schools will be kept constantly up to date on progress and results. Each participating office, therefore, is asked to designate a Study coordinator. The ultimate success of the Study and the quality of the products which result from the Study depend on the care and cooperation of educators at all levels of government; perhaps classroom teachers, the test administrators, must be depended upon most of all.

The responsibilities which must be assumed by participants in each cooperating office and school are as follows:

a. *The Chief State School Officer will*
   1. appoint a State Coordinator to represent him in matters concerning the project,
   2. be informed about Study activities and state participation.

b. *The State Coordinator will*
   1. supply the names and addresses of the directors of testing and district superintendents of the State's selected school districts,
   2. receive communications about progress of the Study and participation of schools within the State.

c. *The District Superintendent will*
   1. appoint a District Coordinator to supervise Study activities,
   2. be informed about Study activities and district participation.

d. *The District Coordinator will*
   1. verify the existence of the schools selected for the sample and whether or not each has pupils in grades 4, 5, and/or 6,
   2. supply ETS with the names and addresses of the principals of the selected schools,
   3. distribute invitations to participate to the selected schools within the district.

e. *The School Principal will*

1. appoint a School Test Coordinator to supervise testing activities,
2. be informed about the Study activities and the general requirements of school participation and see that Study activities are properly carried out by the School Test Coordinator.

f. *The School Test Coordinator must*

1. complete a Pretest Information Form describing the number and type of school classes, the names of the individual teachers, and the school's characteristics,
2. establish proper testing procedures, train teachers, and assist in proper test administration technique,
3. receive, store, distribute, and collect all test materials for the school,
4. complete school, class, and student descriptive information forms with whatever help is needed from the classroom teacher.

g. *The Classroom Teacher must*

1. read the test manual(s) and administer the test(s),
2. complete a summary sheet of classroom data,
3. review pupil's answer sheets and return materials to the School Test Coordinator.

(This will require from one to two hours of classroom time.)

Are there rewards or remuneration for participation?

The School Test Coordinator will be compensated for his services, since his tasks may require other than class time. He has the primary responsibility for the actual test administration and for data collection. He will receive the following honorarium:

Coordination of testing for 149 or fewer pupils—$30
Coordination of testing for 150 to 249 pupils — 40
Coordination of testing for 250 or more pupils — 50

Payment will be made by Educational Testing Service upon receipt of school materials and completion of the test-reporting activities.

How much class time will teachers need to devote to the Study?

Approximately two hours of class time will be required for those pupils participating in the equating phase of the Study. Participation in the restandardization (norming) phase will require approximately one hour of class time.

In the equating phase, the first test will be administered during the morning of the selected test date and the second will be administered in the afternoon. Each test should be scheduled as a one-hour administration. No additional class (pupil) time will be required, although the classroom teacher will be asked to complete a classroom report form and to become familiar with the test administration procedures. This will require about the same teacher time as would normally be required in the administration of a standardized reading test, using a single class period. The tests should be administered only after the teacher feels competent to do so. In the restandardization phase, the administration of the Word Knowledge and Reading subtests of the Metropolitan Reading Test will require 40 minutes.

When will the Study take place?

The initial Anchor Test Study operations began on July 1, 1971. The final report of the Study will be submitted in November 1972. The most important schedule dates for participants to keep in mind are:

Activity	*Scheduled Dates*
Selection of samples	September-October 1971
Invitations distributed to states, districts, schools	October-December 1971
Shipment of test materials to schools	March 1972
Administration of the tests	Week of April 17-21, 1972
Reporting of test scores to schools	June 1972
Submission of the final report and manual on the use of the data to USOE for distribution	November 1972
Distribution of manuals on the use of data and reports on the results of the Study to participating states, school districts, and schools	December 1972

Will our school get any usable test results for its students?

All schools participating in the equating phase of the Study will receive class rosters containing the students' names, raw test scores, national percentile ranks and stanines for one of the two tests given. The school will have the opportunity to identify the test for which it prefers to have scores reported. Time and cost factors prohibit returning test results for both tests administered.

Schools participating in the restandardization (norming) phase of the Study will receive similar alphabetic rosters. These will contain scores on the Reading and Word Knowledge subtests of the Metropolitan Reading Test together with national norms in stanines and percentile ranks according to presently existing information.

Reports of the nature described above will be mailed to the cooperating schools in June 1972. The results reported to participating schools in June 1972 will make use of existing national norms compiled by test publishers. When schools receive copies of the final Study report in December 1972, they will be able to interpret students' raw scores using new national norms. In addition, they will be able to convert students' scores to those of any of the seven tests used in the Study.

Will the pupils tested be identified?

To report test scores to participating schools, each pupil's name must be recorded on his answer document. All published data will be in the form of tables, graphs, and equations. No pupils, schools, school districts, or states will be identified. Data on the performance of each individual or school will be available *only* to the participating school.

What information will be needed about participating pupils?

To insure that the sample tested is representative of the nation's children, the following personal data will be requested about each participating pupil:

1. Birth date
2. Sex
3. Indication of any major physical disability
4. A coded indication of the pupil's race or ethnic group
5. Indication of the pupil's approximate standing on the most recently administered intelligence test

6. Indication of any language and or reading handicap

Which of the seven tests will be administered in our school?

The tests to be administered depend on whether a school is selected to take part in the restandardization (norming) phase or the equating phase of the Study. Random sampling techniques will determine this assignment; there will be no preselection of schools for one phase or the other.

If a school is selected to participate in the equating phase, all fourth, fifth, and sixth-grade students within that school will take appropriate reading and vocabulary subtests of two of the seven tests included in the Study. All these pupils within the school will take the same two sets of subtests. The tests to be administered will be determined by the sampling process; schools will NOT be able to select the tests they will administer since this would damage the Study design.

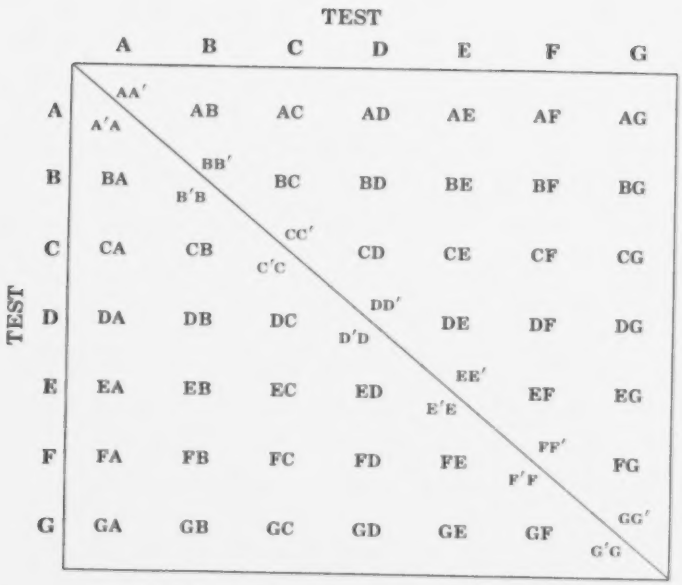
Within the school itself, half the classes in each grade will be taking Subtest A in the morning and Subtest B in the afternoon, while the other half will take Subtest B in the morning and Subtest A in the afternoon. Thus, all pupils in a school will be taking the *same* two tests but in different sequence. Special arrangements will be made for double session schools or others with unique organizational plans.

If a school is selected to participate in the restandardization phase, all fourth, fifth, and sixth-grade students will take the appropriate level of the Word Knowledge and Reading subtests of the Metropolitan Reading Test.

For the technically inclined reader

The following explanation may be helpful with regard to the equating phase. Seven different tests are being used for the equating phase of the Study, each of which may be combined with one of the remaining six tests for a total of 42 possible combinations. The Study design also requires that each test be paired with the most commonly used alternate form of that test; thus an additional seven combinations are generated. Since the *sequence* of administration must also be varied, half the sample will take the tests in a Form A—Form B sequence, while the other half will take the tests in a Form B—Form A sequence.

In graphic form, the sample design is as follows:


TEST
A B C D E F G
TEST
A AA′ A′A AB AC AD AE AF AG
B BA BB′ B′B BC BD BE BF BG
C CA CB CC′ C′C CD CE CF CG
D DA DB DC DD′ D′D DE DF DG
E EA EB EC ED EE′ E′E EF EG
F FA FB FC FD FE FF′ F′F FG
G GA GB GC GD GE GF GG′ G′G

Each entry in this matrix represents a pair of tests. The entry also defines the order in which the tests are to be administered. For example, the entry "AF" indicates that Test A will be given, followed by Test F, while the entry "AA′" indicates that Test A will be given, followed by an alternate form, Test A′.

Within a selected school, half the teachers at all three grade levels will administer the tests in one sequence (for example, AF) while the other half will administer the tests in reverse sequence (in this example, FA).

For ease of administration, test materials will be supplied by ETS in prepackaged form, labeled by school and by class within the school.

Will the results of this Study be published—in what form, and when?

As a part of the final report to the U.S. Office of Education, ETS will prepare a manual on the use of the results of the Study. This manual will be distributed by the U.S. Office of Education to testing and evaluation personnel in state departments of education,

school districts, and schools that participated in the Anchor Test Study.

The manual will contain all the essential elements for score interpretation for all the reading tests used in the Study. Interpretation will be illustrated for a variety of educational settings and decision-making activities typically encountered by guidance counselors, school test officers and administrators, and state and local project evaluators. It will contain score-equivalency tables permitting the user to translate any score on a given reading test to an equivalent score on each of the other six reading tests. National norms for individual score interpretation and school mean norms for interpretation of school means will be provided for each of the seven reading tests at grades four, five, and six. Statistics such as reliabilities and intercorrelations among the reading tests will also be included. Furthermore, the manual will contain specific guidelines and numerical examples on how to use the tables and derive the most appropriate and meaningful score interpretation.

Both the manual and copies of the technical report will be made available upon request to the general educational community by the U.S. Office of Education about December 1972.

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